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May 5, 1993

Donna Searcy, Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D. C. 20554

93-88

Dear Ms. Searcy:

Transmitted herewith, on behalf of EZ Communications, Inc., the applicant for renewal of the license of radio station WBZZ(FM), in Pittsburgh, Pennsylvania, is its Motion to Certify in MM Docket Number 93-88.

In the event there are any questions concerning this matter, please communicate with this office.

Very truly yours,

Herbert D. Miller, Jr.

enc.

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BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

Washington, D. C. 20554

In re Application of **EZ Communications, Inc.** For Renewal of the License of FM Radio Station WBZZ (FM) on Channel 229B at Pittsburgh, Pennsylvania **Allegheny Communications Group, Inc.** For a Construction Permit for a New FM Broadcast Station on Channel 229B at Pittsburgh, Pennsylvania	MM Docket Number 93-88

To: Honorable Edward Luton
Administrative Law Judge

MOTION TO CERTIFY

EZ Communications, Inc., (EZ), the applicant for renewal of the license of radio station WBZZ(FM), in Pittsburgh, Pennsylvania, files herewith, by its attorneys, its Motion to Certify a portion of the *Hearing Designation Order*[1] (*HDO*) to the Commission pursuant to Section 1.106(a)(2) of the Rules.

Section 1.106(a) provides that any party to a proceeding may ask the presiding officer to certify to the Commission "the question as to whether, on policy in effect at the time of designation or adopted since designation, and undisputed facts, a hearing should be held." That section directs the presiding officer to certify the question to the Commission if he finds "that there is substantial doubt, on established policy and undisputed facts, that a hearing should

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[1] *EZ Communications, Inc.*, DA 93-361, released April 5, 1993).

be held." It was adopted in recognition that although the presiding officer lacks the authority to terminate a hearing ordered by the Commission, it is possible for the Commission to have erred. In those circumstances, "a party should not . . . be forced to go through a full evidentiary hearing before having an opportunity raise the policy issue." (*Report and Order in Docket No. 19141,* 24 RR 2d 1715, 1722). For the reasons set forth below, the Allegheny Communications Group, Inc. (Ag'ny) application should have been dismissed as unacceptable for filing, which would have obviated any need for the present hearing. Therefore, this request for certification falls within the class of cases to which Section 1.106(a) pertains.

The sole issue here presented is whether the Mass Media Bureau improperly designated Ag'ny's application for hearing instead of dismissing it due to its clear violation of Section 73.316(b) of the rules, which permits a directional antenna to have a rate of attenuation of no more than 2 db per 10 degrees. As shown here, the directional antenna proposed by Ag'ny exceeds the maximum rate of attenuation permitted by the rules.

As is set forth in detail in Exhibit No. 1, the engineering statement of Herman Hurst, Ag'ny's directional antenna pattern is defined by, and based solely on, the relative field tabulations set forth in Ag'ny's own application. As the Bureau and the HDO both recognized (*HDO*, ¶20), those tabulations showed a

proposed effected radiated power (ERP) at various azimuths of radiation. As a matter of irrefutable physical law this **derivative** ERP data must reflect exactly the underlying relative fields--or it is worthless.

Ag'ny's ERP data calculations do not correctly reflect the underlying relative fields, because Ag'ny performed the calculations incorrectly. When the ERP data is calculated correctly and used, Ag'ny's Section 73.316(b) violation is, once again, obvious. And, in fact, even if Ag'ny's **faulty** data were to be relied on, its proposal would still violate Section 73.316(b).

Thus, the HDO made an obvious error about undisputed facts in evaluating Ag'ny's derivative antenna proposal. Correcting this error requires the dismissal of Ag'ny's application, which will eliminate the need for any hearing. It would clearly serve the public interest, the Commission's interests in regulatory

or Commission monitoring stations or to avoid wasting power over large bodies of water." (See North Carolina Central University, FCC File No. BPED-890313MY, Letter from Dennis Williams, Chief, FM Branch, Audio Services Division, dated December 26, 1990, ref 8920-JRW)."

For the foregoing reasons, it is respectfully requested that this motion to certify be granted.

Respectfully submitted,

EZ Communications, Inc.

EXHIBIT 1

STATEMENT OF HERMAN E. HURST, JR.
IN SUPPORT OF A
MOTION TO CERTIFY

Prepared For: EZ Communications, Inc.

I am a Radio Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia.

My education and experience are a matter of record with the Federal Communications Commission.

This office has been authorized by EZ Communications, Inc. ("EZ"), licensee of WBZZ(FM), Pittsburgh, Pennsylvania, to prepare this statement in support of a Motion to Certify a portion of the Hearing Designation Order ("HDO") in MM Docket 93-88. The HDO, adopted on March 26, 1993, and released on April 5, 1993, designated the WBZZ(FM) renewal of license application (FCC File No. BRH-910401C2) and the application for construction permit for a new FM station on WBZZ's licensed channel of operation filed by Allegheny Communications Group, Inc. (FCC File No. BPH-910628MC) to a comparative hearing to resolve the mutual exclusivity between the applications.

On December 6, 1991, EZ filed a Petition to Dismiss or Deny the Allegheny Communications Group, Inc. ("Allegheny") application for construction permit and detailed the technical deficiencies found in Allegheny's application. A number of related pleadings were subsequently filed in connection with this matter by both Allegheny and

EZ. A reoccurring technical point of contention in these pleadings was Allegheny's proposed directional transmitting antenna's compliance with the 2 dB per 10 degree maximum rate of attenuation as specified in Section 73.316(b) of the FCC Rules. EZ clearly has shown that the directional transmitting antenna, both as initially proposed and as shown in Allegheny's amended technical proposal dated August 30, 1991, violates the requirements of Section 73.316(b).

In the Hearing Designation Order, the Mass Media Bureau determined that: "Based on the relative field tabulations provided in its amendment, **Allegheny's application would violate the 2 dB per 10 degree rule**" (emphasis added, see HDO at paragraph 20). However, the Bureau then contends that the needed information which would render the pattern compliant could be determined "confidently and reliably" based on the "more accurate" Effective Radiated Power ("ERP") data also contained in the Allegheny amendment.

As shown herein, the Bureau is in error in both its conclusion that Allegheny's ERP data is "more accurate" than its relative field data and that the correct radiated power along a given bearing can be "confidently and reliably" determined from the conflicting and inaccurate data in Allegheny's application. Further, notwithstanding the Bureau's erroneous determination, the application REMAINS in violation of the 2 dB per 10 degree rule considering only the ERP data submitted in Allegheny's amendment.

1.0 ALLEGHENY'S ERP DATA IS NOT MORE ACCURATE THAN ITS RELATIVE FIELD DATA.

Contrary to the Bureau's assertion in paragraph 20 of the Hearing Designation Order, the Effective Radiated Power data submitted by Allegheny cannot be determined to be "more accurate" than the relative field data submitted in the application.

The Commission's Rules and Regulations (Section 73.316) as well as Section V-B of FCC Form 301 (Paragraph 10) require applicants for new or changed FM stations proposing directional transmitting antennas to submit a polar plot and tabulation of the antenna horizontal plane relative field pattern. No submission regarding the resulting ERP in each direction (i.e., "power pattern") is required; though for convenience, an applicant often includes this additional information after calculating ERP data from the finalized directional relative field pattern. Only relative field data as tabulated by the applicant and the maximum ERP are maintained in the Commission's database records for each application. This database, which is commercially available to any interested party, is used by Commission staff (and the broadcasting industry) for determining a station's predicted coverage, interference potential, and effective radiated power in a particular direction. Clearly, when a directional antenna is proposed by an applicant, the resulting ERP in various directions can be determined only through calculations using the specified relative field pattern.

In its August 30, 1991, amendment, Allegheny submitted the required relative field data for its amended directional pattern. Though calculated in error, Allegheny also

submitted corresponding ERP data. Allegheny's ERP data is tabulated incorrectly and inconsistently twice, in Tables 1 and 2 of the August, 1991, amendment[1]. Table 1 entitled, "*Tabulation of Directional Antenna Data*" contains Allegheny's proposed antenna relative field data and resulting ERP data (calculated to the nearest 1/10). Table 2 entitled, "*Tabulation of Terrain and Coverage Data*" contains predicted contour distances, the antenna's heights above average terrain and ERP data (to the nearest 1/10000). In a footnote, Allegheny states that the ERP data represented in Table 2 is the "ERP data from Table 1". This obviously is a misstatement since it is impossible to derive a decimal to four significant figures from a number with the decimal provided to one significant figure. In any event, the ERP data set forth in Tables 1 and 2 must have been calculated from the pattern relative field data. Further, Allegheny has never claimed that there is any error in its presentation of this relative field data.

2.0 THE CORRECT EFFECTIVE RADIATED POWER ALONG A GIVEN BEARING CANNOT BE CONFIDENTLY AND RELIABLY DETERMINED DRAWING FROM ALLEGHENY'S TABULATED ERP DATA.

As stated in Section 1.0 above, the Effective Radiated Power data is tabulated in Table 1 and is also included in the terrain and coverage data contained in Table 2 of the amended Allegheny application. The attached Table A tabulates the relative field data

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[1] Similarly, the ERP data is tabulated in Tables 2 and 3 of Allegheny's original application. The inconsistencies presented herein concerning the Allegheny amendment are also present in Allegheny's original application.

set forth in Allegheny's Table 1 for specified azimuths along with the corresponding correctly calculated value of effective radiated power. It can be seen that at five 10° intervals (10°-20°, 30°-40°, 50°-60°, 110°-120°, and 120°-130°), the rate-of-change of the proposed Allegheny pattern is greater than 2 dB/10° in contravention of Section 73.316(b).

Table B, attached, compares the correct value of Effective Radiated Power (in

shown to be inaccurate), the proposed pattern rate-of-change exceeds 2 dB/10° at two 10° intervals (45°-55° and 110°-120°). The Table 1 data presentation avoids exceeding the 2 dB/10° rate-of-change requirement by rounding to the nearest tenth which produces results of insufficient accuracy and which are contradicted by the unrounded data in Table 2 which shows a clear violation.

CONCLUSION

As stated in paragraph 20 of the Hearing Designation Order, the Mass Media Bureau determined that "based on the relative field tabulations provided in the amendment the Allegheny application would violate the 2 dB per 10 degree rule." Therefore, contrary to Allegheny's repeated assertions in its pleadings, the Bureau has supported EZ's contention that the 2 dB per 10 degree rule sets forth an absolute maximum rate of attenuation for a given directional antenna.

Once this maximum rate of attenuation is exceeded, the pattern is rendered non-compliant regardless of the amount by which it exceeds the 2 dB per 10 degree limit. Once the pattern is rendered non-compliant, the Commission's policy is clear:

> "The Commission's policy regarding the 2 dB/10° rate of change limitation is longstanding and has been consistently applied to all FM directional stations, including noncommercial educational stations, for many years. The requirements for directional antennas for both commercial and educational stations were recently reaffirmed in the Report and Order in Docket 87-121, 54 Fed Reg. 09800, adopted December 12, 1988, released February 22, 1989. In that document, 47 C.F.R. § 73.316 was revised to incorporate the 2 dB/10° policy in 47 C.F.R. § 73.316(b)(2), which applies

> to all directional FM stations, including noncommercial stations. See 47 C.F.R. § 73.510. Exceptions to this policy have been limited primarily to stations employing directional antennas for the sole purpose of protecting non-broadcast facilities such as quiet zones or Commission monitoring stations or to avoid wasting power over large bodies of water." (See *North Carolina Central University*, FCC File No. BPED-890313MY, Letter from Dennis Williams, Chief, FM Branch, Audio Services Division, dated December 26, 1990, ref 8920-JRW).

In the above-cited case[2] none of the stated exceptions to the policy were applicable and the application was determined to be unacceptable for filing and was DISMISSED pursuant to 47 C.F.R. § 73.3566(a). Similarly, the Allegheny application proposes a non-compliant directional antenna pattern which is not intended to protect a quiet zone or to conserve power over water. However, contrary to the Commission's "longstanding and consistently applied policy," the Allegheny application was designated for a consolidated hearing instead of being dismissed.

This statement was prepared by me or under my direct supervision and is believed to be true and correct.

DATED: May 4, 1993

Herman E. Hurst, Jr.

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[2] See also *Hearing Designation Order* (MM Docket No. 90-370), adopted August 9, 1990, released September 10, 1990; Chipley Educational Radio, acceptance of amendment proposing directional radiation pattern exceeding 2 dB per 10 degrees would have caused dismissal of application; and *Hearing Designation Order* (MM Docket 91-357), adopted November 25, 1991, released December 17, 1991, Showem, Inc., amendment proposing directional pattern having rate of change only "minimally" exceeding the regulatory limit will be dismissed.

TABLE A

ERP DATA DERIVED FROM RELATIVE FIELD CONTAINED IN ALLEGHENY'S TABLE 1

Azimuth	Relative Field Table 1	ERP(kW)*	ERP(dBk)**	Rate of Change (dB)
0	1.000	43.5	16.38489	
5	1	43.5	16.38489	
10	0.914	36.33972	15.60381	0.781076
20	0.726	22.92780	13.60362	2.000191
30	0.577	14.48241	11.60840	1.995216
40	0.457	9.084931	9.583216	2.025192
45	0.407	7.205731	8.576780	
50	0.365	5.795287	7.630749	1.952466
55	0.325	4.594687	6.622559	1.954220
60	0.288	3.608064	5.572742	2.058007
65	0.271	3.194683	5.044278	1.578281
70	0.271	3.194683	5.044278	0.528463
75	0.271	3.194683	5.044278	0
80	0.296	3.811296	5.810726	0.766448
85	0.332	4.794744	6.807654	1.763375
90	0.332	4.794744	6.807654	0.996927
95	0.332	4.794744	6.807654	0
100	0.371	5.987383	7.772370	0.964716
110	0.467	9.486871	9.771230	1.998859
120	0.589	15.09106	11.78719	2.015968
130	0.743	24.01413	13.80466	2.017470
135	0.833	30.18417	14.79779	
140	0.935	38.02878	15.80112	1.996455
145	1	43.5	16.38489	1.587099
150	1.000	43.5	16.38489	0.583767
160	1.000	43.5	16.38489	0
170	1.000	43.5	16.38489	0
180	1.000	43.5	16.38489	0
190	1.000	43.5	16.38489	0
200	1.000	43.5	16.38489	0
210	1.000	43.5	16.38489	0
220	1.000	43.5	16.38489	0
225	1	43.5	16.38489	
230	1.000	43.5	16.38489	0
240	1.000	43.5	16.38489	0
250	1.000	43.5	16.38489	0
260	1.000	43.5	16.38489	0
264	0.98	41.7774	16.20941	
266	0.958	39.92273	16.01220	
268	0.936	38.11017	15.81040	
270	0.915	36.41928	15.61331	0.771578
272	0.894	34.76676	15.41164	
274	0.874	33.22860	15.21512	0.994292
276	0.854	31.72524	15.01404	0.998152
278	0.835	30.32928	14.81862	0.991787
280	0.815	28.89378	14.60804	1.005269
282	0.835	30.32928	14.81862	0.593020
284	0.854	31.72524	15.01404	0.201071
286	0.874	33.22860	15.21512	0.201071
288	0.894	34.76676	15.41164	0.593020
290	0.915	36.41928	15.61331	1.005269
292	0.936	38.11017	15.81040	0.991787
294	0.958	39.92273	16.01220	0.998152
296	0.98	41.7774	16.20941	0.994292
300	1.000	43.5	16.38489	0.771578
310	1.000	43.5	16.38489	0
315	1	43.5	16.38489	
320	1.000	43.5	16.38489	0
330	1.000	43.5	16.38489	0
340	1.000	43.5	16.38489	0
350	1.000	43.5	16.38489	0

* ERP (kW) = relative field * relative field * maximum ERP

** ERP(dBk) = 10 * log(ERP(kw))

TABLE B

COMPARISON OF ALLEGHENY'S ERP DATA IN KILOWATTS

Azimuth	ERP(kW) from Table A	ERP(kW) from Table 1	ERP(kW) from Table 2	Azimuth	ERP(kW) from Table A	ERP(kW) from Table 1	ERP(kW) from Table 2
0	43.5	43.5	43.5000	210	43.5	43.5	43.5000
5	43.5	43.5		220	43.5	43.5	43.5000
10	36.33972	36.3	36.3487	225	43.5	43.5	43.5000
20	22.92780	22.9	22.9345	230	43.5	43.5	43.5000
30	14.48241	14.5	14.4707	240	43.5	43.5	43.5000
40	9.084931	9.1	9.1304	250	43.5	43.5	43.5000
45	7.205731	7.2	7.2525	260	43.5	43.5	43.5000
50	5.795287	5.8	5.7609	264	41.7774	41.8	41.8301
55	4.594687	4.6	4.5760	266	39.92273	39.9	39.9475
60	3.608064	3.6	3.6349	268	38.11017	38.1	38.1495
65	3.194683	3.2	3.1658	270	36.41928	36.4	36.4325
70	3.194683	3.2	3.1658	272	34.76676	34.7	34.8112
75	3.194683	3.2	3.1658	274	33.22860	33.2	33.2269
80	3.811296	3.8	3.8062	276	31.72524	31.7	31.7314
85	4.794744	4.8	4.7917	278	30.32928	30.3	30.3033
90	4.794744	4.8	4.7917	280	28.89378	28.9	28.9394
95	4.794744	4.8	4.7917	282	30.32928	30.3	30.3033
100	5.987383	6.0	6.0324	284	31.72524	31.7	31.7314
110	9.486871	9.5	9.5607	286	33.22860	33.2	33.2269
120	15.09106	15.1	15.1527	288	34.76676	34.8	34.7928
130	24.01413	24.0	24.0154	290	36.41928	36.4	36.4325
135	30.18417	30.2	30.2336	292	38.11017	38.1	38.1495
140	38.02878	38.0	38.0618	294	39.92273	39.9	39.9475
145	43.5	43.5		296	41.7774	41.8	41.8301
150	43.5	43.5	43.5000	300	43.5	43.5	43.5000
160	43.5	43.5	43.5000	310	43.5	43.5	43.5000
170	43.5	43.5	43.5000	315	43.5	43.5	43.5000
180	43.5	43.5	43.5000	320	43.5	43.5	43.5000
190	43.5	43.5	43.5000	330	43.5	43.5	43.5000
200	43.5	43.5	43.5000	340	43.5	43.5	43.5000
				350	43.5	43.5	43.5000

* ERP (kW) = relative field * relative field * maximum ERP

** ERP(dBk) = 10 * log(ERP(kw))

TABLE C

COMPARISON OF ALLEGHENY ERP DATA IN dBk

Azimuth	ERP(dBk) from Table A	Rate of Change	ERP(dBk) from Table 1	Rate of Change	ERP(dBk) derived from Table 2 **	Rate of Change
0	16.384893		16.38		16.384893	
5	16.384893		16.38			
10	15.603816	0.781076	15.60	0.78	15.604889	0.780004
20	13.603625	2.000192	13.60	2.00	13.604893	1.999996
30	11.608409	1.995216	11.60	2.00	11.604895	1.999997
40	9.583217	2.025192	9.60	2.00	9.604898	1.999997
45	8.576781		8.6		8.604877	
50	7.630750	1.952467	7.60	2.00	7.604903	1.999995
55	6.622560	1.954221	6.6	2.00	6.604860	2.000017
60	5.572742	2.058008	5.60	2.00	5.604925	1.999979
65	5.044278	1.578281	5	1.41	5.004835	1.600025
70	5.044278	0.528464	5.00	0.60	5.004835	0.600090
75	5.044278	0.000000	5	0.00	5.004835	0.000000
80	5.810727	0.766448	5.80	0.80	5.804916	0.800081
85	6.807654	1.763376	6.8	1.63	6.804896	1.800061
90	6.807654	0.996927	6.80	1.00	6.804896	0.999980
95	6.807654	0.000000	6.8	0.00	6.804896	0.000000
100	7.772371	0.964717	7.80	1.00	7.804901	1.000005
110	9.771230	1.998859	9.80	2.00	9.804897	1.999996
120	11.787198	2.015968	11.80	2.00	11.804900	2.000003
130	13.804669	2.017470	13.80	2.00	13.804898	1.999998
135	14.797793		14.8		14.804899	
140	15.801125	1.996456	15.80	2.00	15.804893	1.999995
145	16.384893	1.587100	16.38			
150	16.384893	0.583768	16.38	0.58	16.384893	0.579999
160	16.384893	0.000000	16.38	0.00	16.384893	0.000000
170	16.384893	0.000000	16.38	0.00	16.384893	0.000000
180	16.384893	0.000000	16.38	0.00	16.384893	0.000000
190	16.384893	0.000000	16.38	0.00	16.384893	0.000000
200	16.384893	0.000000	16.38	0.00	16.384893	0.000000

TABLE C
(continued)

COMPARISON OF ALLEGHENY ERP DATA IN dBk
(continued)

Azimuth	ERP(dBk) from Table A	Rate of Change	ERP(dBk) from Table 1	Rate of Change	ERP(dBk) derived from Table 2 **	Rate of Change
210	16.384893	0.000000	16.38	0.00	16.384893	0.000000
220	16.384893	0.000000	16.38	0.00	16.384893	0.000000
225	16.384893		16.38		16.384893	
230	16.384893	0.000000	16.38	0.00	16.384893	0.000000
240	16.384893	0.000000	16.38	0.00	16.384893	0.000000
250	16.384893	0.000000	16.38	0.00	16.384893	0.000000
260	16.384893	0.000000	16.38	0.00	16.384893	0.000000
264	16.209414		16.21		16.214889	
266	16.012203		16.01		16.014896	
268	15.810410		15.81		15.814889	

Certificate of Service

I, Richard Massie, a secretary in the law firm of Koteen & Naftalin, hereby certify that I have this date sent copies of the foregoing to the following by First Class United States Mail, postage prepaid:

*Honorable Edward Luton
Administrative Law Judge
Federal Communications Commission
Room 225
2000 L Street, N.W.
Washington, D.C. 20554

*Paullette Y. Laden, Esq.
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* By hand

/s/ Richard Massie
Richard Massie

May 5, 1993